



NATIONAL PETROCHEMICAL COMPANY
STANDARDS

MATERIAL STANDARD
FOR
POSITIVE DISPLACEMENT PUMPS-RECIPROCATING
NPCS-MS-RE-04
REVISION : 0

DECEMBER 1992

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CONTENTS

- 1 GENERAL
- 2 MODIFICATIONS TO API 674
- 3 SECTION 1 - GENERAL
- 4 SECTION 2 - BASIC DESIGN
- 5 SECTION 3 - ACCESSORIES
- 6 SECTION 4 - INSPECTION, TESTING AND PREPARATION FOR SHIPMENT
- 7 SECTION 5 - GUARANTEE AND WARRANTY
- 8 SECTION 6 - VENDORS DATA

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1 GENERAL

- 1.1 Positive displacement reciprocating pumps shall be supplied in accordance with the following:

API 674, "Positive Displacement Pumps-Reciprocating", First Edition, May 1980.

- 1.2 This standard is supplemented by data sheets for each individual item on which the operating conditions and special requirements are listed. Wherever the data sheets conflict with the provisions of this standard, the data sheets shall govern. In the event that there are any exceptions to specifications, data sheets, codes, standards, etc., these shall be clearly listed in vendor's bid.

- 1.3 Compliance by manufacturer with the provisions of this standard does not relieve him of his responsibility of furnishing equipment and accessories of proper design mechanically suited to meet the specified service conditions.

- 1.4 Unproven, prototype or "first-off" equipment is not acceptable; only proven equipment may be used. Proven equipment is defined as equipment that has been in continuous operation elsewhere for a minimum of two years without major breakdowns. On similar duties and under similar conditions. In this context, "similar" does not mean absolutely identical. However casings of given sizes and pressure ratings must have been operated together at powers and speeds of the same order of magnitude on the application under consideration.

2 MODIFICATIONS TO API 674

The following paragraphs specifying the modifications follow the API 674 numbers and each paragraph denotes and addition, substitution, deletion or modification.

(Substitution)

The API Standard clause is deleted and replaced by the new clause.

(Deletion)

The API Standard clause is deleted without any replacement.

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(Addition)

A new clause with a new number is added,

(Modification)

Part of the API Standard clause is modified, and/or a new description and/or condition is added to that clause.

3 ' SECTION 1 GENERAL

1.1 SCOPE

(Substitution)

This standard covers the minimum requirements for reciprocating pumps in process service.

Note: Purchaser's requirements for all paragraphs in API 674 which require a purchaser's decision (bulleted paragraphs) are indicated on the data sheets or in this standard. If not addressed in the enquiry, the proposal shall clearly state the basis included in the furnished pricing.

1.2 ALTERNATIVE DESIGN

1.2.1 (Modification)

Metric fasteners and flanges constitute alternative design features and must be cited as exception in the proposal.

1.2.2 (Modification1)

Where reference is made in this standard to AISI or ASTM materials, alternative equivalent materials are acceptable. Chemical composition and physical properties shall be suitable for the intended service. All materials are subject to approval by purchaser. Where pressure vessels as defined by the ASME Code are included, they shall be designed and manufactured in accordance with section VIII and IX.

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1.3 CONFLICTING REQUIREMENTS

1.3.1 (Substitution1)

In case of conflict between the various documents, their order of precedence is as follows:

- a) Purchase order.
- b) Requisition.
- c) Data sheets.
- d) This standard.
- e) Referenced industry standards.

1.3.2 (Addition)

All conflicting requirements shall be referred to purchaser in writing. Purchaser will issue confirming documentation, if needed, for clarification.

1.4 DEFINITION OF TERMS

1.4.3 (Addition)

"Unit Responsibility" refers to vendor responsible for coordinating the technical aspects of the equipment and all auxiliary systems included in the scope of the order. This includes expanding and assurance that all applicable standard referenced on the data sheets or requisition are supplied to and complied with, by any sub-vendor. It also includes guarantee of performance of the complete package furnished. Unless specified otherwise in the purchase order, vendor shall have unit responsibility. In the event of problems being experienced with the complete operating unit when installed, it is the prime vendors responsibility to identify the source of the problem and only if and when he can establish that the source is not within his control will he cease to be responsible for the resolution of that problem.

1.4.4 (Addition)

Agreement shall be obtained in writing from the company before work may be sub-contracted. Vendor shall inspect, coordinate and resolve any problem related to his sub-vendor.

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